

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-8 (canceled).

Claim 9 (currently amended): The method of claim 39 wherein:

the second measurement obtained by using the laser beam of the second spot size has a higher resolution than the first measurement obtained by using the beam of the first spot size.

Claim 10 (currently amended): The method of claim 39 wherein:

the wafer comprises a plurality of areas of integrated circuits separated from one another by a plurality of streets; and

[[the]] a first location illuminated by the beam of the first spot size is in a street in the plurality of streets, and [[the]] a second location illuminated by the laser beam of the second spot size is in an area in the plurality of areas of integrated circuits.

Claims 11-17 (canceled).

Claim 18 (currently amended): The method claim 39 wherein:

the wafer comprises a semiconductor substrate and a plurality of layers formed on the semiconductor substrate, said plurality of layers including said top layer;

[[the]] a first measurement obtained by using the beam of the first spot size is of reflectance of at least one dielectric layer at a first location in the wafer; and

[[the]] a second measurement obtained by using the laser beam of the second spot size is of reflectance of said at least one layer in a second location in the wafer;

wherein the second measurement is used to detect thickness of a topmost layer.

Claims 19-38 (canceled).

Claim 39 (currently amended): A method of determining a property of a wafer, the method comprising:

measuring reflectance of the wafer at a plurality of wavelengths, based on illumination of the wafer with a beam of white light of a first spot size;

based on reflectance at the plurality of wavelengths, generating a model of reflectance at a predetermined wavelength as a function of thickness of a top layer of the wafer;

measuring reflectance at the predetermined wavelength, based on illumination of the wafer with at least a laser beam of a second spot size, the second spot size being smaller than the first spot size; and

based on reflectance at the predetermined wavelength, looking up the model to determine a value of thickness of the top layer of said wafer.

Claim 40 (previously presented): The method of claim 39 wherein:

the top layer is hereinafter "first layer," said model is hereinafter "first model," and said value is hereinafter "first value";

the method further comprises determining a second value of thickness of the first layer based on reflectance at the plurality of wavelengths, generating a second model of reflectance at the predetermined wavelength as a function of thickness of a second layer of the wafer and looking up the second model to determine a third value of thickness of the second layer if the first value is greater than the second value by a predetermined amount.

Claim 41 (original): The method of claim 39 wherein:

reflectance at the plurality of wavelengths is measured at a first location;

reflectance at the predetermined wavelength is measured at a second location; and

the second location is separated from the first location by a predetermined distance.

Claim 42 (original): The method of claim 41 wherein:

the predetermined distance is sufficiently small to ensure that a plurality of properties, other than said thickness, are substantially identical between said first location and said second location.

Claim 43 (previously presented): The method of claim 40 wherein:
the predetermined amount is 1%.

Claim 44 (canceled).

Claim 45 (new): The method claim 39 wherein:
the workpiece comprises a wafer including a semiconductor substrate and a plurality of layers formed on the semiconductor substrate, said plurality of layers including said top layer;
said top layer is a semiconductor layer; and
a measurement, obtained by using the laser beam of the second spot size, is performed in a device that measures junction depth of the top layer in the wafer.

Claim 46 (new): The method claim 39 wherein:
the workpiece comprises a wafer including a semiconductor substrate and a plurality of layers formed on the semiconductor substrate, said plurality of layers including said top layer;
said top layer is a semiconductor layer; and
a measurement, obtained by using the laser beam of the second spot size, is performed in a device that measures concentration or concentration profile of dopants in the top layer in the wafer.

Claim 47 (new): The method of claim 39 wherein:
the laser beam of the second spot size is of constant power; and
a pump beam is coincident with said laser beam, the pump beam has a wavelength different from said laser beam, and the pump beam is modulated at a predetermined frequency; and

said measuring of reflectance at the predetermined wavelength comprises using a lock-in amplifier at the predetermined frequency.